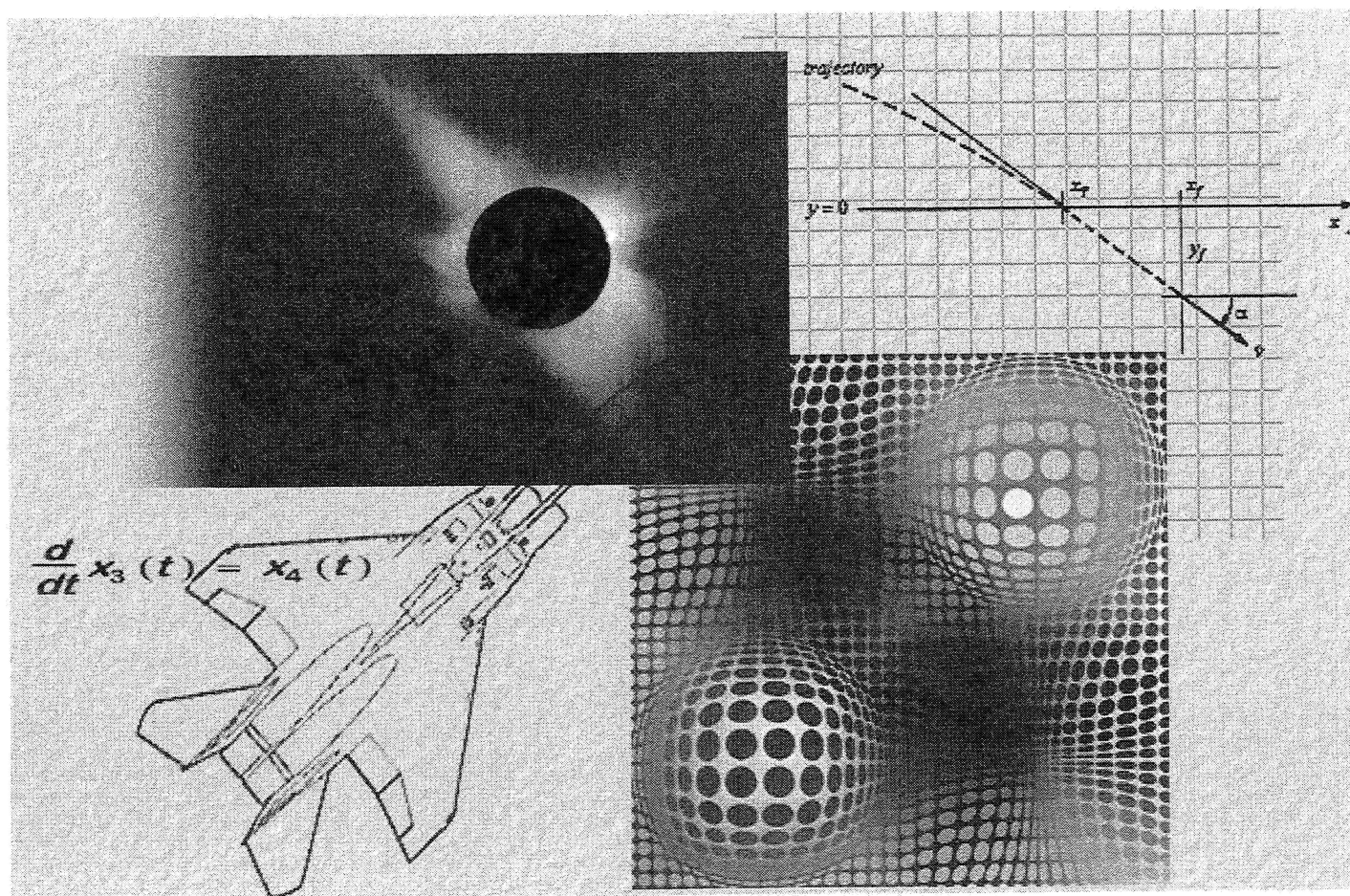


Modeling and Simulation @ Tidewater Community College

by

Michael Summers

Modeling and Simulation @ Tidewater Community College



Outline of Presentation

- Associate in Applied Science degree
- Dual enrollment activity at area high schools
- Development of a M & S transfer degree with ODU
- M & S as a teaching strategy
- Future activities

Associate in Applied Science Degree

- DACUM in summer 2005
- Benchmarking to University of Central Florida and Daytona Beach Community College
- EMTASC input
- New M & S lab established in Portsmouth
- First M & S courses offered in spring 2006 at the Portsmouth and Virginia Beach campuses

Dual Enrollment Activity

- Partnership with Suffolk Public Schools and Isle of Wight Public Schools
- “Teaser” courses offered in Suffolk high schools for fall 2007
- Marketing brochures for high school students

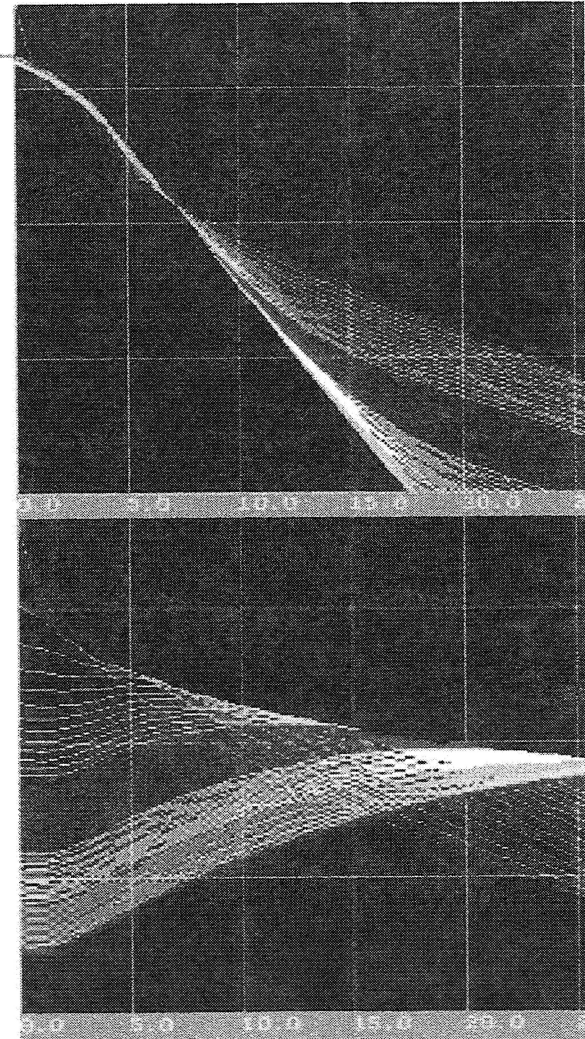
M & S Transfer Degree with ODU

- Initial discussions with Engineering and Computer Science departments
- New consideration of an interdisciplinary degree

Modeling & Simulation as a teaching strategy

- Investment of \$1.5 million in medical simulation technology
- Integration of medical simulation activities into the curriculum
- Support from TCC leadership
- Individual and team activities
- Skill development and critical thinking/problem solving skills

Future Activities



- ACLS certification training for existing health care workers
- Beta test site for advanced digital video/audio/data recording of simulation activity
- Driving simulators for truck driver training
- Crisis scenario simulators for law enforcement officer training

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Appendix A: List of Participants

Detailed contact information is listed here for the speakers and panelists whose work appears in this publication. For a complete list of participants and their contact information, please refer to Appendix B: Education & Training Track Schedule.

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Appendix B: Education & Training Track Schedule

MODSIM World 2007 Conference and Expo Education & Training Track

Tuesday, September 11, 2007

1. Invited Speaker

Tuesday, September 11, 2007
10:30 AM – 12:00 PM

“Simulated Students and Classroom Use of Model-Based Intelligent Tutoring”

Dr. Kenneth R. Koedinger
Title: Professor, Computer Science
Affiliation: Carnegie Mellon University
E-mail: koedinger@cmu.edu

Discussant:
Dr. Michael A. Evans, Virginia Tech, mae@vt.edu

2. Learning Theory Session

Tuesday, September 11, 2007
1:30 PM – 3:00 PM

Session Title: How Learning Theory Supports Using Modeling, Simulation, and Game-Based Learning to Teach Science, Technology, Engineering, and Mathematics

Panelists:

Mr. Christopher Clark
Title: Lead Designer Delta 3D
Affiliation: Moves Institute, Naval Post Graduate School
E-mail: cdclark@nps.edu

Dr. Michael Darby
Title: Lecturer and Researcher, Computer Science
Affiliation: Curtin University of Technology, Australia
E-mail: m.darby@curtin.edu.au

Dr. Daniel Laughlin
Title: Learning Technologies Researcher
Affiliation: NASA Goddard – University of Maryland, Baltimore County
E-mail: daniel.d.laughlin@nasa.gov

Ms. Mary Meurders
Title: Researcher
Affiliation: IPN Foundation Talent Development and Research
E-mail: info@stichtingipn.nl

Panel Moderator:
Bruce Milligan, Federation of American Scientists, bmilligan@fas.org

3. Curriculum Development Session

Tuesday, September 11, 2007
3:30 PM – 5:00 PM

Session Title: Integrating Modeling, Simulation, and Game-Based Learning into Science, Technology, Engineering, and Mathematics

Panelists:

Mr. Tyler Bangert
Title: Science Teacher
Affiliation: Alchesay High School, Whiteriver, AZ
E-mail: tbangert@wusd.k12.az.us

Mr. John Jamison
Title: National Program Director for the Game and Simulation Programming Program
Affiliation: DeVry University
E-mail: jjamison@devry.edu

Mr. David Weaver
Title: Physics Faculty
Affiliation: Chandler-Gilbert Community College
E-mail: david.weaver@cgcmail.maricopa.edu; dweaver@cox.net

Panel Moderator:
Catherine Wyman, DeVry University, cwyman@devry.edu

4. Poster Session and Reception

Tuesday, September 11, 2007
5:00 PM – 6:30 PM

Coordinator:
Dr. Alicia Sanchez, Defense Acquisition University, alicia.sanchez@dau.mil

Wednesday, September 12, 2007

5. Invited Speaker

Wednesday, September 12, 2007

8:30 AM – 10:00 AM

“Play and Learn: Potentials of Game-Based Learning”

Dr. Maja Pivec

Title: Researcher and Lecturer

Affiliation: University of Applied Sciences FH Joanneum, Austria

E-mail: maja.pivec@fh-joanneum.at

Discussant:

Paul Kearney, UNITEC New Zealand, paul@radical.ac.nz

6. Professional Development Session

Wednesday, September 12, 2007

10:30 AM – 12:00 PM

Session Title: Scientific and Mathematic Knowledge Acquisition: Professional Development in Interactive Learning Environments

Panelists:

Dr. Len Annetta

Title: Assistant Professor, College of Education

Affiliation: North Carolina State University

E-mail: len_annetta@ncsu.edu

Dr. Bethany Hudnutt

Title: Project Manager

Affiliation: Shodor Educational Foundation

E-mail: bhudnutt@shodor.org

Dr. James Minogue

Title: Assistant Professor, College of Education

Affiliation: North Carolina State University

E-mail: james_minogue@ncsu.edu

Panel Moderator

Dr. Len Annetta, North Carolina State University, len_annetta@ncsu.edu

7. Luncheon Speaker

Wednesday, September 12, 2007

12:30 PM – 1:15 PM

"Immersive Collaboration Simulations: Multi-User Virtual Environments and Augmented Realities"

Dr. Christopher Dede
Title: Timothy E. Wirth Professor in Learning Technologies
Affiliation: Harvard University
E-mail: chris_dede@gse.harvard.edu

8. Tools and User Applications Session

Wednesday, September 12, 2007

1:30 PM – 3:00 PM

Session Title: Tools and Applications: Innovative Uses of Game-Based Learning

Panelists:

Mr. Graeme Duncan
Title: Chief Operating Officer
Affiliation: Caspian Learning, UK
E-mail: graeme@caspianlearning.co.uk

Mr. Paul Kearney
Title: PhD Candidate, Deakin University, Australia
Affiliation: UNITEC New Zealand
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Dr. Rasha Morsi
Title: Director, Center for Gaming and Simulation
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Dr. Karin A. Orvis
Title: Assistant Professor, Psychology
Affiliation: Old Dominion University
E-mail: karin.orvis@odu.edu

Panel Moderator:
Paul Kearney, UNITEC New Zealand, paul@radical.ac.nz

9. Infrastructure, Integration, and Issues Session

Wednesday, September 12, 2007

3:30 PM – 5:00 PM

Session Title: From Infrastructure to Integration: Modeling, Simulation, and Game-Based Learning in the 21st Century Classroom

Panelists:

Dr. Matt Dunleavy

Title: Project Director, Handheld Augmented Reality Project

Affiliation: Graduate School of Education, Harvard University

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Dr. Michael A. Evans

Title: Assistant Professor, Instructional Design and Technology Program

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Dr. Tammy McGraw

Title: Director, Office of Educational Technology

Affiliation: Virginia Department of Education

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Dr. Manorama "Mano" Talaiver

Title: Director, Institute for Teaching through Technology and Innovative Practices

Affiliation: Longwood University

E-mail: mano@ittip.us

Panel Moderator:

Mark Saunders, Virginia Department of Education,

mark.saunders@doe.virginia.gov

Thursday, September 13, 2007

10. Student Competition Session – A Joint Education and Training and Transportations Track Initiative

Thursday, September 13, 2007

8:30 AM – 10:00 AM

Session Title: An Overview of Student Modeling and Simulation Competitions for Transportation System Design

Panelists:

Ms. Susan Baker

Title: Project Director

Affiliation: Virginia Economic Bridge

E-mail: sbaker@vebinc.org

Dr. Catherine M. Banks

Title: Director of Academic Affairs

Affiliation: Virginia Modeling, Analysis, and Simulation Center, Old Dominion University
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Dr. Mary Sandy
Title: Directory
Affiliation: Virginia Space Grant Consortium
E-mail: msandy@odu.edu

Dr. Elizabeth "Liz" B. Ward
Title: Special Projects, Advanced Planning and Partnership Office
Affiliation: Christopher Newport University
E-mail: elizabeth.b.ward@nasa.gov

Panel Moderator:
Susan Baker, Virginia Economic Bridge, sbaker@vebinc.org

11. Workforce Development Session

Thursday, September 13, 2007
10:30 AM – 12:00 PM

Session Title: Preparing a World-Class MODSIM Workforce for Virginia: The Community College Connection

Panelists:

Mr. Dave Tillman
Title: Training Director
Affiliation: Apprentice School, Northrop Grumman Newport News
E-mail: dave.tillman@ngc.com

Dr. Michael Summers
Title: Vice President for Academic and Student Affairs
Affiliation: Tidewater Community College
E-mail: msummers@tcc.edu

Ms. Patricia "Pat" P. Taylor
Title: Dean, Mathematics, Engineering, and Technologies
Affiliation: Thomas Nelson Community College
E-mail: taylorp@tncc.edu

Panel Moderator:
Dr. Deborah G. Wright, Thomas Nelson Community College, wrightd@tncc.edu

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